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Assistive Technology & Mobile Devices as a Supported Strategy in the Connected World of People with Disabilities

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Assistive Technology & Mobile Devices
as a Support Strategy in the Connected World of People with Disabilities

M. Wade Wingler, MBA, ATP
Developmental Disabilities Lecture Series
Boggs Center - April 8, 2016

Some ground rules for today

- Please ask questions
- There is never a SINGLE RIGHT WAY to address the technology needs of a human being — especially a person with a disability
- You may very well have a better idea than me—and that’s OK.
- This stuff changes ALL THE TIME so none of this is written in stone

Who is this guy?
| Husband & Father | VP of Tech | Adjunct Professor | Podcast Host |

Close your eyes...

History of Assistive Technology

Cairo Toe

950 BC

The iPad changed my life!
— John Lasseter

In current iteration:
- Portable
- Touch Interface
- Affordable
- Connected
- Camera
- Microphone
- Speakers
- Gyroscope
- GPS

You will find more iOS than Android options in this presentation - That reflects the marketplace
- iOS was the first to include a lot of built-in accessibility features and we standardized on iOS early on
- There are often Android equivalents - We recommend searching “[app name] android” to find alternatives when available

Tech Needs for Service Providers
- Scheduling & Task Management
- Reminders
- Communication
- Note Taking
- Community Navigation
- Information of all kinds

Tech Needs for People with Disabilities
- Scheduling & Task Management
- Reminders
- Communication
- Note Taking
- Community Navigation
- Information of all kinds

This technology is becoming ubiquitous
- iPhone
- Android
- Windows
- Tablets
- Laptops

How many of you have one of these devices?

AT Stigma?
Not so much with tablets and smart phones

Who pays for this stuff?
About Funding

Funding Options for iPads/Apps

For Home and Community
- 3DD (with evaluation, on a case by case basis)

For Work
- DVRS (must be client of DVRS, meet their criteria)

For School
- School Districts (must be required to meet IEP goals)

For other sources of funding:
- Assistive Technology Advocacy Center, DRN: 800-DIAL-TEC

Area Alternative Financing Programs

- www.CTTechAct.com
- de.easterseals.com
- www.mdtap.org
- www.massat.loan.com
- www.self.us
- www.atlfa.org
- www.EasterSealsTech.com

Not local but: Indiana | www.EasterSealsTech.com

Special Funds

- act.today.org
- autismspeaks.org
- cplanet.com
- de.easterseals.com
- aboutprojectiAm.com
- specialkidstherapy.org
- babieswithipads.blogspot.com

Special Funds (continued)

- parkerspurpose.net
- smallstepsinspeech.org
- silentstars.org
- silentstars.com
- silentstarsatlanta.org
- smallstepsinspeech.org
- specialkidstherapy.org
- babieswithipads.blogspot.com
- aboutprojectiAm.com
- specialkidstherapy.org
- babieswithipads.blogspot.com

As costs drop, self/family funding is on the rise

Self Funding

- Holiday gifts
- Save/budget
- Community Fundraising
- Crowd funding
  - GoFundMe
  - Local charity Programs
  - Build into cost of other disability services

Shopping the options
Choosing an Operating System

- iOS (iPhone Operating System)
  - Most popular, More expensive, More apps, Fully integrated
- Android
  - Still popular, Least expensive, Apps gaining, OS fragmented
- Windows
  - Popularity dwindling, Mid-range pricing, Fewer apps, OS familiar

Choosing a Device

Size

- Phones
  - 4-5" diagonal
- "Phablets"
  - 5-8" diagonal
- Tablets
  - 8-13" diagonal

About Memory

Average Size (MB): iPad16GB iPad32GB iPad54GB iPad128GB iPad

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<th>Videos</th>
<th>Games</th>
<th>Apps</th>
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</tbody>
</table>

*Between iCloud, Dropbox, etc., more and more is stored in the cloud.

About Connectivity

- Wifi
  - All tablets and phones, no monthly cost - tied to WiFi
- Cellular
  - Some tablets and all phones, data package required - higher cost devices - anywhere you get cell signal
- Hot Spotting
  - If you’re paying for data on your phone, you might be wiser to tie your tablet to your phone’s data - good compromise

Finding Apps

App Store

Available on the
App Store

App Store

Bridging Apps

Easter Seals Houston - Integrative Search engine - profiles

BridgingApps.org

Apple/VISA

Apple + Vision impairment
founded

AppleVISA.com

Google: "Tools for Life apps"
The Cloud

The main points?
- Always available
- From many devices
- Automatically backed up
- Shared access/control when you want it

The Future

Some predictions for the future
- Multi-platform
- More crowd sourced
- Augmented Reality
- Subscription-based
- Wearables
- Sensors & Bio-aware

Mounts and Cases

Mounts & Cases
- $80 - $130 - waterproof & rugged
  http://buff.ly/1UmvdeW
- LifeProof Cases
  $50-150 - rugged
  http://buff.ly/1PykDJx
- OtterBox Cases
  $80 - $130 - waterproof & rugged
  http://buff.ly/1YNBm0
ArmorBox Kiddo
$20 - kid friendly with stand/handle

iGuy Cases
$20 - kid friendly

Mount ‘n Mover
$250 - $1,100 - adjustable and customizable
http://buff.ly/22ELbWn

RAM Mount
$50 - $150 - modular - made for emergency vehicles & motorcycles
http://buff.ly/1TcjmP7

iAdapter
$285 - rugged - AAC-specific
http://buff.ly/22ELqkc

Oontz Angle
$30 - wired or bluetooth

Anker Mini (lipstick)
$40 - slow - high capacity

Anker Power Core
$170 - super fast - mid-capacity

New Trent
$15 - mid-speed - low capacity

Batteries

Speakers

Built-in iOS Accessibility

iOS. A wide range of features for a wide range of needs.

Built-in iOS Accessibility includes features like Voice, Hearing, Physical and Motor Skills, Learning, and Literacy.
Siri Tips & Tricks

What can I help you with?

Siri Tricks

- “Hey Siri”
- Lists, appointments, reminders, alarms
- Apple Music commands
- Adjust settings
- Open favorite apps
- Conversions (ft to meters, ounces to pounds, etc.)

- “How much is a 25% tip on $26?”
- “How much is 7x19?”
- “Get walking directions to…”
- “Read me my text messages”
- “Call (business name)”
- “Tell me a joke”

Demo time!

Apps for Communication

Mainstream apps

Skype
- Audio, Video, Text communication
  (iOS/Android - $0)

Facetime
- Audio, Video communication
  (iPad - $0)

Texting with pictures
- Text and pictures
  (iOS/Android - $0)

Augmentative & Alternative Communication (AAC)

Panda Pal AAC
- Text, pictures, symbols
  (iOS - $0)

ProloQuo2Go
- Symbol + text
  (iOS - $250)

Sonoflex
- Photo-based, digitized speech
  (iOS - $0/$45)

Panda Pal AAC
- Audio, Video, Text communication
  (iPad - $0)

Augmentative & Alternative Communication (AAC)

Non-literate-based

ProloQuo2Go
- Symbol & text
  (iOS - $0)

Panda Pal AAC
- Text, pictures
  (iOS - $0)
Augmentative & Alternative Communication (AAC)

- Verbally
  - iOS: $0/$100
- Proloquo4Text
  - Alternative Communication
  - iOS: $0

Scheduling & Time Management

- Built-in calendars
  - iOS/Android: $0
- Cozi
  - Shared calendar
  - iOS: $0/$3/month
- Google Calendar
  - iOS: $0
- About my Day
  - iOS: $0
- Picture Scheduler
  - iOS: $0

Alarms

- Alarma
  - Photo and sound
  - iOS/Android: $0
- Alarmed
  - Reminder
  - iOS: $0
- Built-in Alarms
  - Word Calendar
  - iOS: $0

Reminders

- Built-in Reminders
  - iOS/Android: $0
- Choice Works
  - Symbol/picture based
  - iOS: $7
- Trello
  - Card metaphor
  - iOS/Android: $0
- Remember the Milk
  - Symbol/picture based
  - iOS/Android: $0/$9/month

Note taking

- Aida Reminders
  - Photo and sound
  - iOS/Android: $0/$1/month
- Shake Awake
  - Alternative Communication
  - iOS/Android: $0
- Alarma
  - WooCommerce
  - iOS: $0
- Choice Works
  - Symbol/picture based
  - iOS: $7
- Trello
  - Card metaphor
  - iOS/Android: $0
- Remember the Milk
  - Symbol/picture based
  - iOS/Android: $0/$9/month
Note taking

- Voice Dream Reader/Writer
  - iOS/Android: $5
  - Livescribe
    - iOS/Android: $5
  - Evernote
    - iOS/Android: $5
  - NoteAbility
    - iOS: $5
  - Audio Note
    - iOS/Android: $5

Day One Alternative Communication

- iOS - $5

Journaling with metadata & IFTT

- iOS - $5

Evernote

- Pen/paper + app
  - iOS/Android - $100
  - http://buff.ly/1WRgjLn

Multi-modal input/output

- iOS/Android - $10

Super-charged note taking & info archiving

- iOS/Android - $0/$50/yr

Livescribe

- Voice Dream
  - iOS/Android - $5
  - http://buff.ly/1TbGOfx

Voice Dream Reader/Writer

- Lecture
  - iOS - $0

Snap Type

- Lectio
  - iOS - $0

Misc Note Taking Supports

- Spot recognizer/reader
  - iOS - $5

- Lectio
  - iOS - $0

- Snap Type
  - iOS - $0

Video Modeling & Prompting

- 30/30
  - iOS/Android: $0

- iModeling
  - Visual social stories
  - iOS - $10

- Model Me
  - iOS - $0

Community Navigation

- Waze
  - iOS/Android: $0

- Find Friends
  - iOS - $0

- AbleRoad
  - iOS: $0

- Yelp
  - iOS - $0

- Another
  - iOS/Android: $0

- Find My iPhone
  - iOS - $0
Behavior

- Simply Being
  iOS/Android - $2

- iReward
  Alternative Communication
  iOS/Android - $3/4

- Chaiworks
  Symbol/picture based - routines
  iOS - $7

- Simply Being
- iReward
- Chaiworks

Weather

- Swaddit
  Visual weather
  iOS/Android - $2

- Carrot
  Alternative Communication
  Smart aleck but accurate weather
  iOS - $4

- RainAware
  Super accurately answers "When will it rain?"
  iOS/Android - $5

- Swaddit
- Carrot
- RainAware

When there are multiple disabilities

- Different apps might accommodate different issues
  work with the built-in accessibility features (ex. scheduling app with zoom; behavioral app with guided access)

- Because apps are usually task-specific and inexpensive, it's easy to try lots or use combinations - Try Try Try!

- Many apps are designed to

- Some apps are inherently good for multiple disabilities (speech output often helps with vision and learning disabilities)
**NJ Resources**

Get Started Now
Support from Advancing Opportunities

- See what’s possible! Website and YouTube Channel
  [www.assistivetechcenter.org](http://www.assistivetechcenter.org)
- Try before you buy! Borrow iPads, iPod touches
  Technology Lending Center (also on website)
- Get some help! AT Specialists come to you
  Mobile services, evaluations and training

888-322-1918

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**US Resources**


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**Q&A**

@INDATAProject @wwingler

/INDATA

wwingler@eastersealscrossroads.org

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[Assistive Technology](#)

[Accessibility Minus](#)

[Assistant Technology FAQ](#)
App list

**Communication**
- Skype – [www.skype.com](http://www.skype.com)
- FaceTime – built into iOS
- Panda Pal AAC – [www.pandapal.com](http://www.pandapal.com)
- Proloquo2go – [www.assistiveware.com](http://www.assistiveware.com)
- Sonoflex – [www.tobiidynavox.com](http://www.tobiidynavox.com)
- Verbally – [www.verbally.com](http://www.verbally.com)
- Proloquo4text – [www.assistiveware.com](http://www.assistiveware.com)

**Scheduling & Time Management**
- Choiceworks Calendar – [www.beevisual.com](http://www.beevisual.com)
- Cozi – [www.cozi.com](http://www.cozi.com)
- Google Calendar – [www.google.com/apps](http://www.google.com/apps)
- About My Day – University of Victoria (search in iTunes)
- Picture Scheduler - Petr Jankuj (search in iTunes)
- Alarmy – [www.abcy.a.com](http://www.abcy.a.com)
- Shake Awake Alarm – BrennanMoyMedia (search in app stores)
- Alarmed – [www.yoctoville.com](http://www.yoctoville.com)
- Aida Reminders - Sergio Licea (search in app stores)
- Sticky Notes – tewks (search app stores)
- Choice Works – [www.bevisual.com](http://www.bevisual.com)
- Trello – [www.trello.com](http://www.trello.com)
- Remember The Milk – [www.rememberthemilk.com](http://www.rememberthemilk.com)

**Note Taking**
- Voice Dream Reader/Writer – [www.voicedream.com](http://www.voicedream.com)
- Day One Journaling – [www.dayoneapp.com](http://www.dayoneapp.com)
- Livescribe smart pen – [www.livescribe.com](http://www.livescribe.com)
- Noteability – [www.gingerlabs.com](http://www.gingerlabs.com)
- Audio Note – [www.luminantsoftware.com](http://www.luminantsoftware.com)
- Lectio – [www.mylectio.com](http://www.mylectio.com)
- Snap Type for Occupational Therapy – [www.otswithapps.com](http://www.otswithapps.com)

**Video Modeling and Prompting**
- 30/30 – [www.binaryhammer.com](http://www.binaryhammer.com)
- iModeling – [www.autismspeaks.com](http://www.autismspeaks.com)
- Pictello – [www.assistiveware.com](http://www.assistiveware.com)
- Aurasma – [www.aurasma.com](http://www.aurasma.com)
- ModelMe – [www.modelmekids.com](http://www.modelmekids.com)
- Video Scheduler – MDR – (search in iTunes)

**Community Navigation**
- Waze – [www.waze.com](http://www.waze.com)
- Find Friends – built into iOS
AbleRoad – www.ableroad.com
Yelp – www.Yelp.com
Around Me – www.aroundmeapp.com
Find my iPhone – built into iOS

Behavior
Simply Being – Meditation Oasis (search app stores)
iReward – www.irewardchart.com
Choiceworks – www.beevisual.com

Weather
Swackett – www.swackett.com
Carrot – www.meetcarrot.com
RainAware – www.rainaware.com

Sources for Apps
Bridging Apps - www.BridgingApps.org
AppleVis – www.AppleVis.com
Tools for Life – search “tools for life apps”
The app/play store on your device

Local Resources
Advancing Opportunities – AT lending library with iPads
www.assistivetechnologycenter.org

Potential Funding Sources
Act Today | Autism | act-today.org
Silent Stars | Apraxia | silentstars.org
Project Mariposa | Spinal Muscular Atrophy | thegsf.org
Autism Speaks | Autism | autismspeaks.org
Conover Mobile Tech Fund | not-dis specific | conovercompany.com
Blind Citizens | Vision | blindcitizens.org
iTaalk Autism Foundation | Autism | itaalk.org

Friends of Jacob | Autism | cplanet.com
Special Kids Therapy | Special Needs | specialkidstherapy.org
Project iAm | Autism | aboutprojectiAm.com
Babies with iPads | Deserving children | babieswithipads.blogspot.com
Parkers Purpose | Kids disabilities-financial crisis | parkerspurpose.net
Small Steps in Speech | Speech | smallstepsinspeech.org

History of Assistive Technology Timeline
http://bluebirdcare.ie/assistive-technology-ancient-modern-times/

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